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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,112	10/30/2000	Michael Gottlieb Jensen	1778.1730000	8333

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EXAMINER	
ELLIS, RICHARD L	

ART UNIT	PAPER NUMBER
2183	

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/702,112	JENSEN ET AL.	
	Examiner	Art Unit	
	Richard Ellis	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,9,18,20 and 36-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,9,18,20,36-41,43-48,50-56,58-62 and 64-67* is/are rejected.

7)☒ Claim(s) *42,49,57 and 63* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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1. Claims 1, 9, 18, and 20 remain for examination. Claims 36-67 are newly presented for examination.

2. The text of those sections of Title 35, US Code not included in this action can be found in a prior Office Action.

3. 35 USC § 101 reads as follows:

> "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

4. Claims 50-57 and 64-67 are rejected under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter. Claims 50-57 and 64-67 are not limited to tangible embodiments. In view of Applicant's disclosure, specification page 46 line 1 to page 47 line 4, the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., CD-ROM, DVD-ROM) and intangible embodiments (e.g., carrier wave). As such, the claim is not limited to statutory subject matter and is therefore non-statutory. Intangible embodiments, such as electromagnetic signals, are not patentable because they do not fall within one of the statutory classes of subject matter allowed by 35 USC § 101.

To define what is meant by a signal one must begin with basic concepts of the physical world. As explained in Gillespie et al., Chemistry 2 (Allyn and Bacon, Inc. 1986):

> "We can describe the universe, and all the changes occurring in it, in terms of two fundamental concepts: matter and energy. Matter is anything that occupies space and has mass. Water, air, rocks, and petroleum, for example, are matter, but heat and light are not; they are forms of energy. The many different kinds of matter are known as substances. ..."

When referring to "structure" or "material" or "substance" what is being referred to is matter and things made up of matter. Energy is further defined at Chemistry 53:

> "The capacity to do work is called energy. Gasoline, for example, possesses energy because when it is burned, it can do the work of moving a car. We measure energy by the work done, and thus energy, like work, is measured in joules.
>
> In practice, it is convenient to distinguish different forms of energy, such as heat energy, light energy, electric energy, and chemical energy. ..."

Energy has physical existence because it is capable of doing work and of being measured, but is incorporeal.

The claimed electromagnetic signal is a form of electric energy which has physical existence as an electromagnetic wave in a communications path or as an electrical voltage in the circuits of a transmitter or receiver. This is distinguished from the use of the term signal to refer to an abstract quantity such as a number. See In re Walter, 618 F.2d 758, 770, 205 USPQ 397, 409 (CCPA 1980) ("The 'signals' processed by the inventions of claims 10-12 may represent either physical quantities or abstract quantities; the claims do not require one or the other").

The starting point for nonstatutory subject matter analysis is the statute, 35 USC § 101, and the Supreme Court's basic principles as enunciated in Diamond v. Diehr, 450 U.S. 175 (1981). As stated in In re Warmerdam, 33 F.3d 1354, 1358, 31 USPQ2d 1754, 1758 (Fed. Cir. 1994):

> "Despite the oft-quoted statement in the legislative history of the 1952 Patent Act that Congress intended that statutory subject matter "include anything under the sun that is made by man," S. Rep. No. 1979, 82d Cong., 2d Sess., 5 (1952), reprinted in 1952 U.S.C.C.A.N. 2394, 2399; H.R. Rep. No. 1923, 82d Cong., 2d Sess., 6 (1952), Congress did not so mandate. Congress included in patentable subject matter only those things that qualify as "any . . . process, machine, manufacture, or composition of matter, or any ... improvement thereof. ..." 35 U.S.C. § 101. ...
>
> To include some things is to exclude others. The chore of defining exactly what is excluded under § 101, and applying such definitions to specific cases, has caused courts to expend much effort in trying to find the right words to describe some rather abstract notions. In Diamond v. Diehr, 450 U.S. 175 (1981), the Supreme Court summarized the scope of the § 101 exclusion and the Court's prior efforts at describing it by saying "[e]xcluded from such patent protection are laws of nature, natural phenomena, and abstract ideas. ... Our recent holdings in Gottschalk v. Benson and Parker v. Flook, both of which are computer-related, stand for no more than these long-established principles." Id. at 185.

Two comments are relevant. First, subject matter must first fall within § 101 before the exclusions apply. See In re Pardo, 684 F.2d 912, 916, 214 USPQ 673, 677 (CCPA 1982) ("[A]ny process, machine, manufacture, or composition of matter constitutes statutory subject matter unless it falls within a judicially determined exception to section 101."); In re Sarkar, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) ("[A] series of steps is a 'process'

within § 101 unless it falls within a judicially determined category of nonstatutory subject matter exceptions."). Second, it is not certain that "laws of nature, natural phenomena, and abstract ideas" represent an exhaustive set of statutory subject matter exclusions, such that "laws of nature, natural phenomena, and abstract ideas" combined with the set of "process, machine, manufacture, or composition of matter" comprises a universal set all possible types of subject matter. Thus, subject matter is not presumed to be statutory under 35 U.S.C. § 101 if it does not fit within the enumerated exclusions of "laws of nature, natural phenomena, and abstract ideas." The proper analysis is to determine whether the claimed subject matter falls within one of the four classes of § 101 and, if so, whether the subject matter falls within one of the exclusions.

First the claimed signal is analyzed under the definitions of the four statutory classes of § 101. The claimed signal is clearly not a "process" under § 101 because it is not a series of steps. The other three § 101 classes of machine, compositions of matter and manufactures "relate to structural entities and can be grouped as 'product' claims in order to contrast them with process claims." D. Chisum, Patents § 1.02 (1994). The three product classes have traditionally required physical structure or material (matter).

"The term machine includes every mechanical device or combination of mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result." Corning v. Burden, 56 U.S. (15 How.) 252, 267 (1854). A modern definition of machine would no doubt include electronic devices which perform functions. Indeed, devices such as flip-flops and computers are referred to in computer science as sequential machines. The claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine.

A "composition of matter" "covers all compositions of two or more substances and includes all composite articles, whether they be results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids." Shell Development Co. v.

Watson, 149 F. Supp. 279, 280, 113 USPQ 265, 266 (D.D.C. 1957), aff'd, 252 F.2d 861, 116 USPQ 428 (D.C. Cir. 1958). The claimed signal is not matter, but a form of energy, and therefore is not a composition of matter.

The Supreme Court has read the term "manufacture" in accordance with its dictionary definition to mean "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." Diamond v. Chakrabarty, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting American Fruit Growers, Inc. v. Brogdex Co., 283 U.S. 1, 11, 8 USPQ 131, 133 (1931), which, in turn, quotes the Century Dictionary). Other courts have applied similar definitions. See American Disappearing Bed Co. v. Arnaelsteen, 182 F. 324, 325 (9th Cir. 1910), cert. denied, 220 U.S. 622 (1911). These definitions require physical substance, which the claimed signal does not have. Congress can be presumed to be aware of an administrative or judicial interpretation of a statute and to adopt that interpretation when it re-enacts a statute without change. Lorillard v. Pons, 434 U.S. 575, 580 (1978). Thus, Congress must be presumed to have been aware of the interpretation of manufacture in American Fruit Growers when it passed the 1952 Patent Act.

A manufacture is also defined as the residual class of product. Chisum, § 1.02[3] (citing W. Robinson, The Law of Patents for Useful Inventions 270 (1890)). A product is a tangible physical article or object, some form of matter, which the claimed signal is not. That the other two product classes, machine and composition of matter, require physical matter is evidence that a manufacture was also intended to require physical matter. The claimed signal, a form of energy, does not fall within either of the two definitions of manufacture.

Continuing to look at the § 101 class of manufacture, in In re Hruby, 373 F.2d 997, 153 USPQ 61 (CCPA 1967), the CCPA held that there was no distinction between the meaning of "manufacture" in § 101 and "article of manufacture" in § 171 for designs. The issue in Hruby was whether that portion of a water fountain which is composed entirely of water in motion was an article of manufacture. The CCPA relied on the analysis of the term

manufacture in Riter-Conley Mfg. Co. v. Aiken, 203 F. 699 (3d Cir.), cert. denied, 229 U.S. 617 (1913), a case involving a utility patent. The CCPA stated in Hruby, 373 F.2d at 1000, 153 USPQ at 65:

> "The gist of it is, as one can determine from dictionaries, that a manufacture is anything made "by the hands of man" from raw materials, whether literally by hand or by machinery or by art."

The CCPA held that the fountain was made of the only substance fountains can be made of --water-- and determined that designs for water fountains were statutory. Articles of manufacture in designs manifestly require physical matter to provide substance for embodiment of the design. Thus, since "article of manufacture" under § 171 has the same meaning as "manufacture" under § 101, it is inevitable that a manufacture under § 101 requires physical matter.

Some indirect evidence that Congress intended to limit patentable subject matter to physical things and steps is found in 35 USC § 112 paragraph 6. Paragraph 6 states that an element in a claim for a combination may be expressed as a "means or step" for performing a function and will be construed to cover the corresponding "structure, material, or acts described in the specification and equivalents thereof." "Structure" and "material" indicate tangible things made of matter, not energy.

The claimed signal does not fit clearly within one of the three Diehr exclusions of "laws of nature, natural phenomena or abstract ideas." A signal may be an abstraction because it is disembodied in the sense of having no physical structure. Even if the signal were a signal in a wire, which requires movement of physical matter such as electrons, the signal is the propagating disturbance in the medium, not the medium itself. In any case, however, the exclusions are not controlling because subject matter must first fall within § 101 before the exclusions apply. Pardo and Sarkar, supra.

5. Claims 50-57 and 64-67 are rejected under 35 USC § 112, first paragraph, for lack of written description.

Applicant's entire disclosure within the specification for the subject matter claimed in

claims 50-57 and 64-67 occurs from page 46 line 1 through page 47 line 4 where applicant indicates that other embodiments are within the breadth of the claim language, such as implementations as program code. However, this is insufficient disclosure to support the now claimed subject matter.

Obviousness is not the test for written description. As stated in Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1968 (Fed. Cir. 1997):

> The question is not whether a claimed invention is an obvious variant of that which is disclosed in the specification. Rather, a prior application itself must describe an invention, and do so in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought. See Martin v. Mayer, 823 F.2d 500, 504, 3 USPQ2d 1333, 1337 (Fed. Cir. 1987) (stating that it is "not a question of whether one skilled in the art might be able to construct the patentee's device from the teachings of the disclosure.... Rather, it is a question whether the disclosure necessarily discloses that particular device.") (quoting Jepson v. Coleman, 50 C.C.P.A. 1051, 314 F.2d 533, 536, 136 USPQ 647, 649-50 (1963))....
> One shows that one is "in possession" of the invention by describing the invention, with all of its claimed limitations, not that which makes it obvious.

In order to satisfy the written description requirement, the disclosure as originally filed "must ... convey with reasonable clarity to those skilled in the art that ... [the inventor] was in possession of the invention." Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). Put another way, one skilled in the art, reading the original disclosure, must "immediately discern the limitation at issue" in the claims. Waldemar Link GmbH & Co. v. Osteonics Corp. , 32 F.3d at 558, 31 UPSQ2d at 1857.

More than just the language in the specification or claim is needed to show possession of the invention to satisfy the written description requirement. See In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983) ("The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language." (Emphasis added.)).

In this case, the specification as filed fails to "describe an invention, and do so in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the

claimed invention as of the filing date sought." Put another way, the specification fails to show "possession of the invention by describing the invention, with all of its claimed limitations, not that which makes it obvious."

6. Claims 50-57 and 64-67 are rejected under 35 USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As detailed above, the specification lacks written description support for the invention claimed in claims 5-57 and 64-67. Therefore, because the description does not describe the invention now being claimed, it is not possible for that same lacking description to describe to one of skill in the art how to make and/or use the invention now claimed. The specification merely states that it is possible to produce an implementation of the invention embodied in software. However, a significant amount of undue experimentation would be required on the part of one of skill in the art to produce a software embodiment of applicant's invention. Accordingly, the specification fails to provide proper enablement for the newly claimed subject matter of claims 50-57 and 64-67.

7. Claims 1, 9, 18, and 20 are rejected under 35 USC § 103 as being unpatentable over Larsen et al., U.S. patent 5,115,500, in view of Heene et al., U.S. Patent 4,802,119.

Larsen et al. and Heene et al. were first cited as prior art references in paper number 6, mailed November 14, 2003.

8. The rejections are respectfully maintained and incorporated by reference as set forth in the last office action, paper number 20041108, mailed November 15, 2004.

9. Claims 50-56 are rejected under 35 USC § 103 as being unpatentable over Larsen et al. in view of Heene et al., as detailed , supra., and further in view of Tanenbaum, *Structured Computer Organization*, 1984.

10. As to new claim 50, Larsen et al. in view of Heene et al. taught the invention as detailed in the previous rejections of the claims. Larsen et al. and Heene et al. did not specifically indicate that the system the describe was implemented in the form of a processor

core embodied as software. However, Tanenbaum clearly taught that it was obvious to chose implement a system in hardware or software based upon the designers preference (pg. 11, section entitled "Hardware and software are logically equivalent"). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have implemented the system of Larsen et al. and Heene et al. as software as taught by Tanenbaum because of Tanenbaum's indication that such decision is based solely upon factors such as cost, speed, reliability, and frequency of expected changes.

11. New claims 36-49 and 57-67 are rejected under 35 USC § 103 as being unpatentable over Larsen et al., U.S. patent 5,115,500, in view of Heene et al., U.S. Patent 4,802,119.

12. As to new claim 64, Larsen et al. and Heene et al. taught the features of this claim as detailed, supra. Furthermore both Larsen et al. and Heene et al. taught that a program initializes the data utilized by the system to pick an ISA operating mode (Larsen et al., col. 5 lines 13-33, Heene et al., col. 4 lines 34-59 and col. 5 lines 39-47) and as such procedures to perform the initialization are inherently present in the software that performs such initialization.

13. As to new claim 58, Larsen et al. in view of Heene et al. taught the claimed method of operation of the system as has been previously discussed in the rejection of other claims. Accordingly, claim 58 is rejected for the same reasons as the rejection of claims 1, 9, 18, 20, 36-41, 43-48, and 64-67.

14. As to new claims 36, 43, and 51, Heene et al. taught that the plurality of boundary address registers stored boundary addresses that represented lower address bounds for the plurality of address ranges (col. 7 lines 16-43).

15. As to new claim 37, 44, and 52 Larsen et al. when combined with Heene et al. taught that the boundary address registers represented upper bounds for the plurality of address ranges (fig. 2, 111 represents the upper bounds for the TYPE 1 instructions). Heene et al. at fig. 2b, $B8FF indicates the upper bound for PABL2 of fig. 4.

16. As to new claims 38, 45, 53, and 67, Larsen et al. taught partitioning the memory into

unequal size address ranges (fig. 2, 1/8 for TYPE 2, 7/8 (an unequal amount to 1/8) for TYPE 1).

17. As to new claims 39, 46, 54, and 61 Larsen et al. taught that the partitioning was performed at initialization time (col. 5 lines 20-33). Furthermore, Heene et al. clearly indicated that the boundary address registers were initialized at initialization time (col. 5 lines 39-47).

18. As to claims 40, 47, 55, and 62 Larsen et al. taught that the mapping should be configurable by an operating system at program load time (col. 5 lines 13-34).

19. As to claims 41, 48 and 56 Larsen et al. taught that a linker was used to resolve the values that create the boundary mapping for the boundaries between ISA modes (col. 2 lines 38-35, and col. 4 line 60 to col. 5 line 12).

20. As to claims 59 and 65, Larsen et al. taught that memory addresses having a value greater than a first boundary address (fig. 2, 000) and less than a second boundary address (fig. 2, 111) corresponded to a first memory address range (TYPE 1).

21. As to claims 60 and 66, Larsen et al. taught that a memory address having a value less than a first boundary address (fig. 2, 111) and greater than a second boundary address (fig. 2, 000), corresponded to a first memory address range (TYPE 1).

22. Applicant's arguments filed February 15, 2005, paper number 20050215, have been fully considered but they are not deemed to be persuasive.

23. In the remarks, applicant argues in substance:

23.1. That: "Larsen does not disclose "a plurality of boundary address registers for storing boundary addresses."

This is not found persuasive because applicant is merely arguing that Larsen et al. lacks what which the Larsen et al. reference has already been admitted as lacking. See paper number 6, mailed November 14, 2003, where in paragraph five it was admitted that Larsen et al. did not disclose a plurality of boundary address registers. Accordingly, applicant is arguing the references in isolation, which is improper. One cannot show nonobviousness by attacking

references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

23.2. That: "Larsen et al. also does not disclose or suggest "an ISA mode controller, coupled to the plurality of boundary address registers, that ... receives an address of a program instruction to be decoded, compares the address to boundary addresses stored in the plurality of boundary address registers, and determines an ISA decoding mode for the program instruction based upon the comparison of the address to the boundary addresses."

This is not found persuasive because applicant is again in part improperly arguing the references in isolation. Larsen et al. does teach an ISA mode controller, which determines an ISA decoding mode for the program instruction as IDM 5 of figs. 2, 4, 5, and 6. What Larsen et al. did not disclose, and what was already admitted that Larsen et al. did not disclose, was the plurality of boundary address registers, and the comparison of a received address with those plurality of boundary address registers. However, this is the material which is added to the combination rejection by the secondary reference to Heene et al. Applicant's attention is drawn to Heene et al. fig. 4 where there is shown a plurality of boundary address registers (66, 61, 65, 61) and necessary comparators (65, 60, 66, 50) for comparing an incoming address (12) with the boundary address registers and outputting a signal indicating a match (68, 63, 59, 53). It is this idea which is being combined with the teachings of Larsen et al. to reject the claims, and when this idea from Heene et al. is combined with Larsen et al., the combined system would have contained plural boundary address registers and would have compared incoming addresses with those plural boundary address registers for matches to select an ISA mode.

24. Claims 42, 49, 57, and 63 are objected to as being dependent upon a rejected base claim, but would render the base claim allowable over the prior art of record (presuming all other appropriate rejections of the particular base claim were also overcome) if bodily incorporated into the base claim such that the new base claim included all of the original limitations of the base claim, any intervening claims, and the objected claim.

25. **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CFR § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

26. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Richard Ellis whose telephone number is (571) 272-4165. The Examiner can normally be reached on Monday through Thursday from 7am to 5pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Eddie Chan, can be reached on (571) 272-4162. The fax phone number for the USPTO is: (703)872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Richard Ellis
April 18, 2005

RICHARD L. ELLIS
PRIMARY EXAMINER